



REGIONAL INDICATORS INITIATIVE: Rochester





METRICS



ENERGY (BTUS): electricity, gas, and other heating fuels consumed citywide (subdivided into residential and commercial/industrial)

Data Source: Energy utilities for gas and electricity, MPCA and ACS for other fuels



WATER (GALLONS): potable water consumed citywide (subdivided into residential and commercial/industrial)

Data Source: Minnesota Department of Natural Resources



TRAVEL (VEHICLE MILES TRAVELED): on-road distance traveled within city limits

Data Source: Minnesota Department of Transportation



WASTE (SHORT TONS): citywide municipal solid waste managed via recycling, combustion, and landfilling (prorated from countywide data)

Data Source: Minnesota Pollution Control Agency



GREENHOUSE GAS EMISSIONS (TONNES CO₂E): citywide greenhouse gas emissions associated with each of the four indicators

Includes: carbon dioxide, methane, nitrous oxide

Excludes: biogenic emissions

regionalindicatorsmn.com



SCOPE

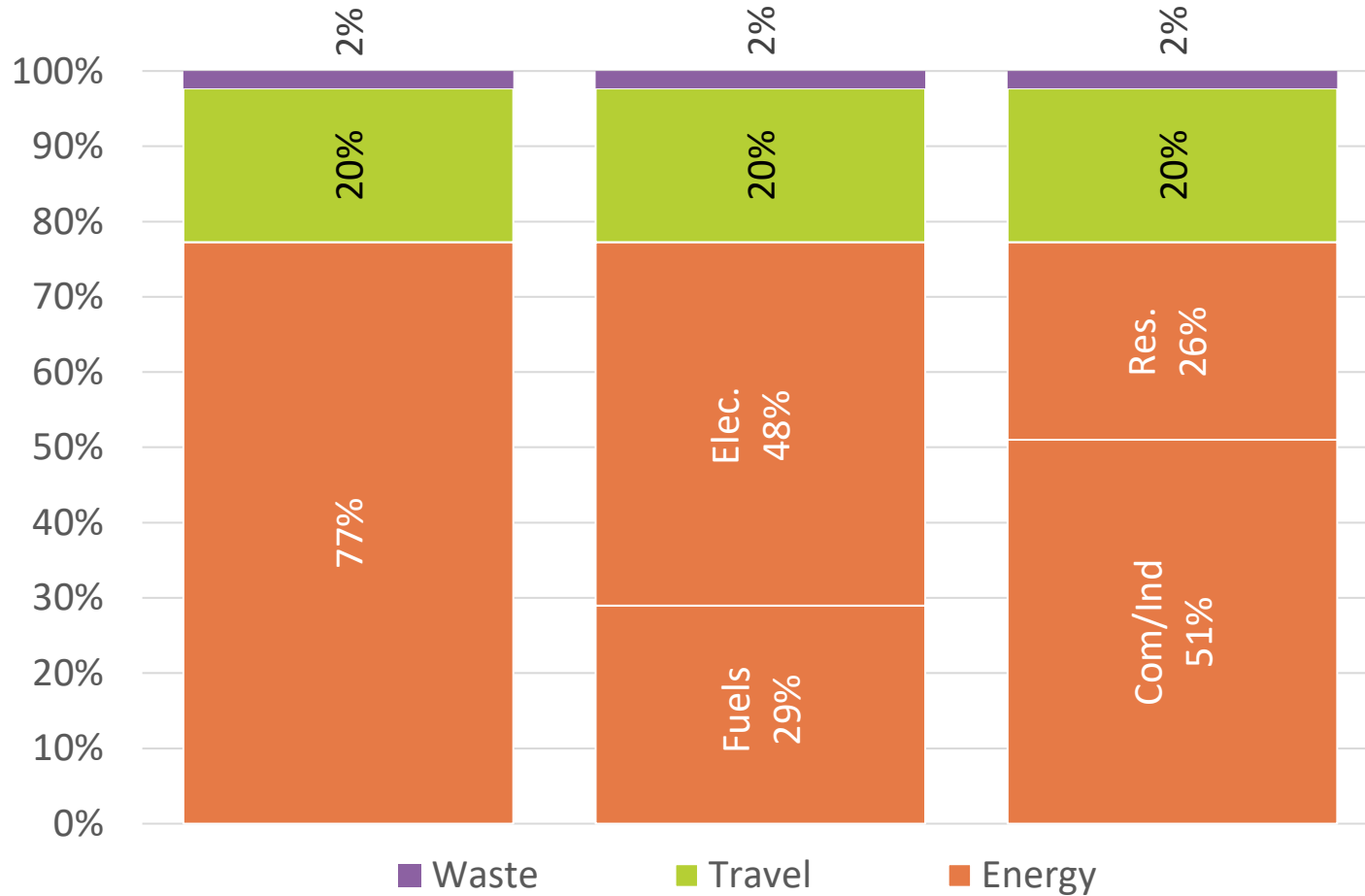
75 CITIES WITH 1+ YEAR OF COMPLETE DATA

A	Andover, Apple Valley, Arlington, Austin
B	Belle Plaine, Bemidji, Big Lake, Blaine, Bloomington, Brainerd, Brooklyn Center, Brooklyn Park, Burnsville
C-D	Columbia Heights, Coon Rapids, Crystal, Duluth
E-F	Eagan, Eden Prairie, Edina, Elk River, Falcon Heights, Fridley
G-H	Golden Valley, Grand Marais, Hastings, Hopkins, Hutchinson
I-L	Inver Grove Heights, Isanti, Jordan, Lake Elmo, Lauderdale, Lexington
M	Mahtomedi, Mankato, Maplewood, Marine on St. Croix, Minneapolis, Minnetonka, Moorhead, Morris
N	New Brighton, New Germany, Newport, Nisswa, North Mankato, North Saint Paul, Northfield
O-R	Oak Park Heights, Oakdale, Orono, Red Wing, Richfield, Robbinsdale, Rochester, Rosemount, Roseville, Royalton
S	Saint Anthony Village, St. Louis Park, Saint Paul, St. Paul Park, Shoreview, South St. Paul, Stillwater, Sunfish Lake
V-W	Victoria, Warren, Wayzata, West Saint Paul, White Bear Lake, Willmar, Winona, Woodbury



GREENHOUSE GAS EMISSIONS

ROCHESTER



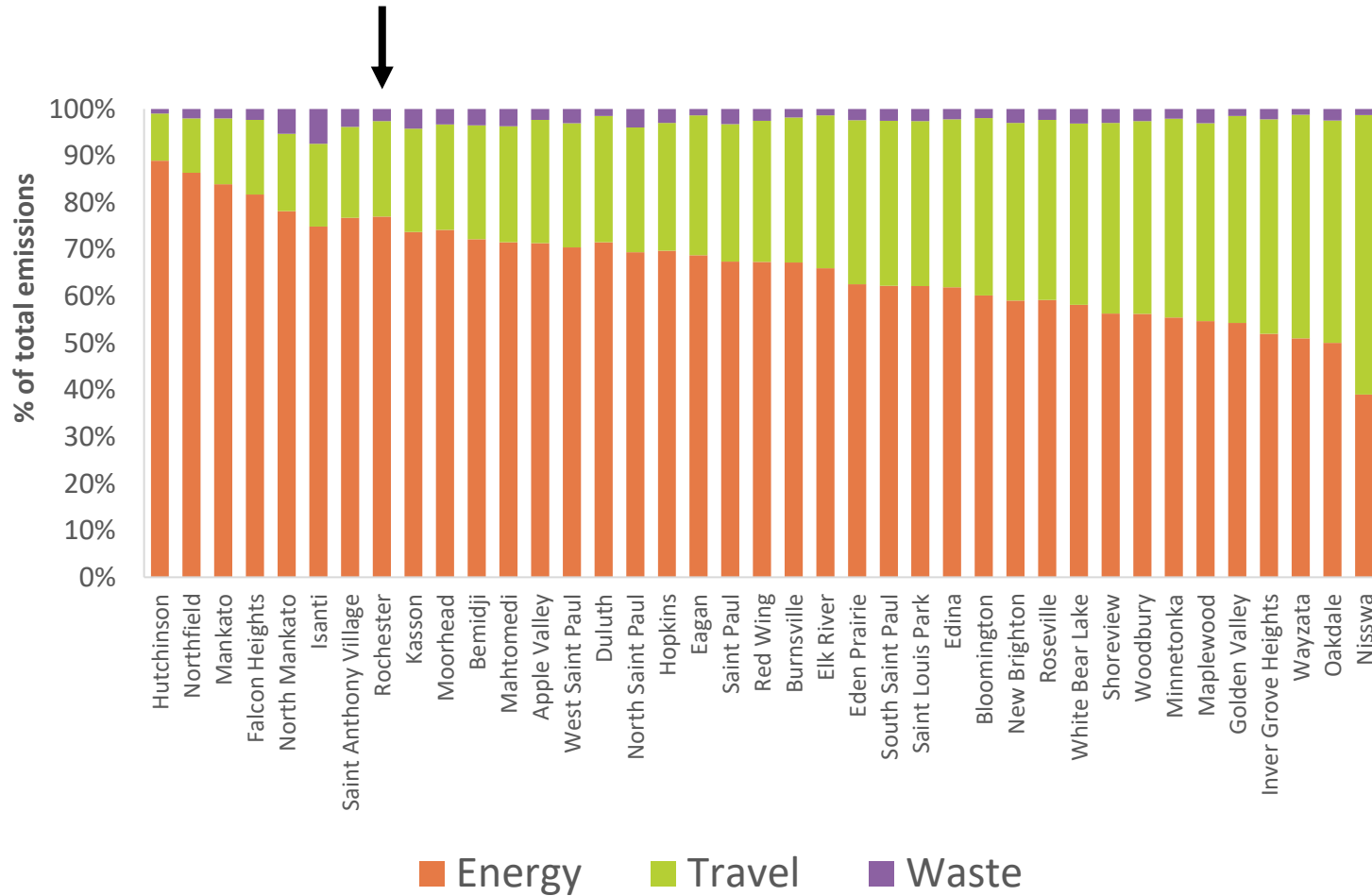
Over three-quarters of the community's GHG footprint is from the energy used in buildings.

Prioritize building strategies.



COMPARISONS WITH OTHER CITIES

GHG EMISSIONS BREAKDOWN



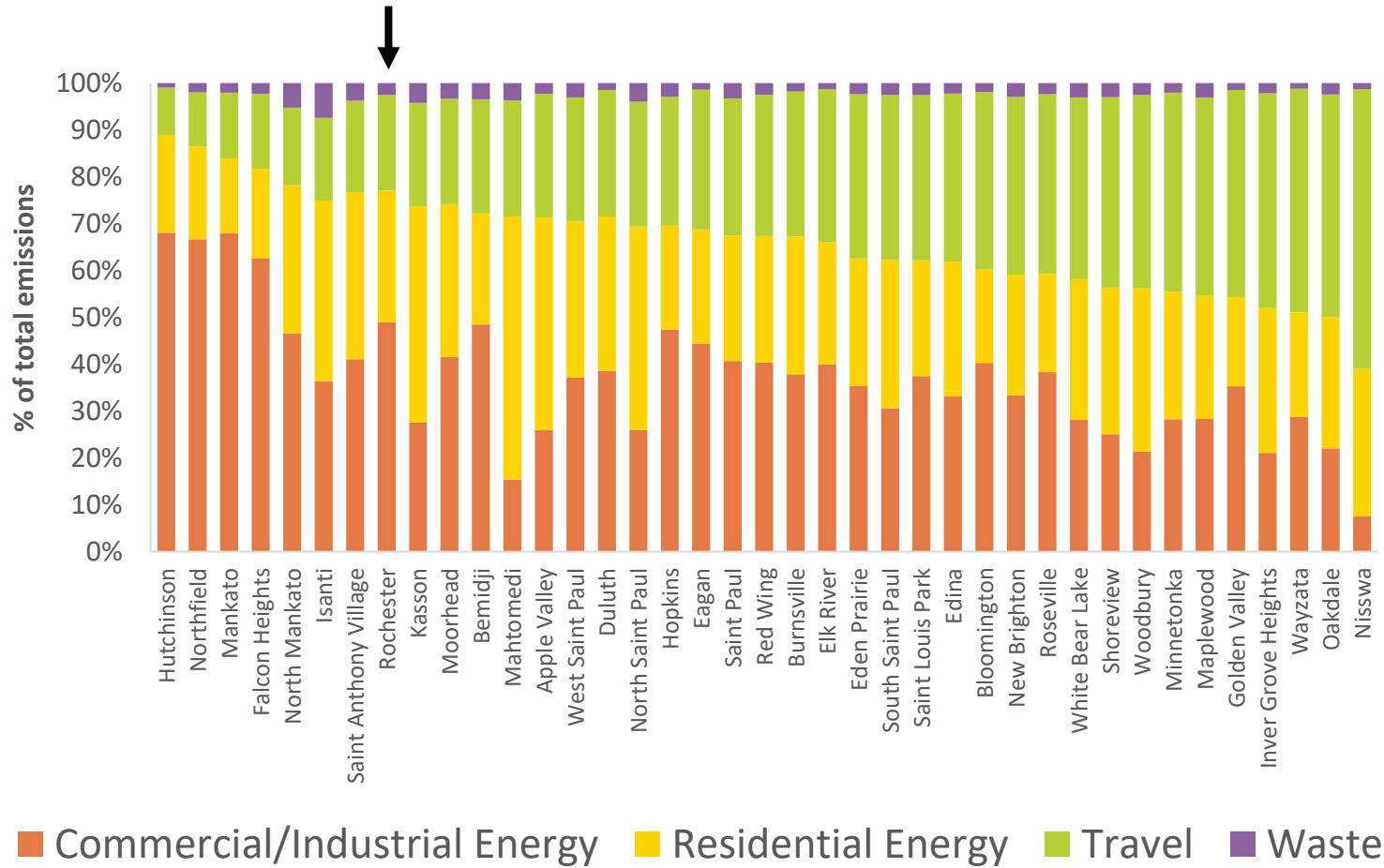
Emissions from non-travel energy range from 50-70% for most cities.

Prioritize building strategies.



COMPARISONS WITH OTHER CITIES

GHG EMISSIONS BREAKDOWN



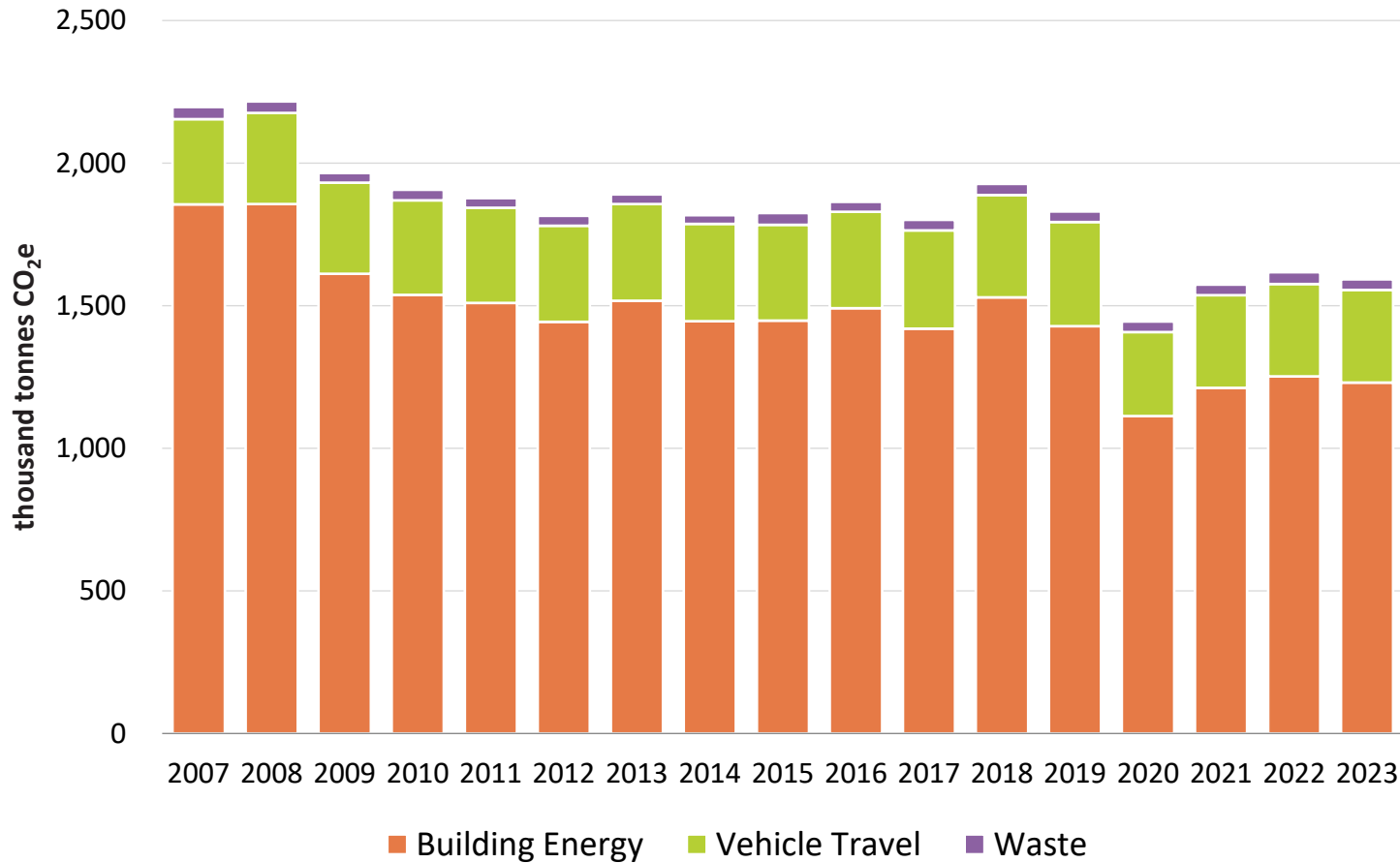
Breakdowns vary by city.

Prioritize actions that are most impactful for your city.



GREENHOUSE GAS EMISSIONS

ROCHESTER



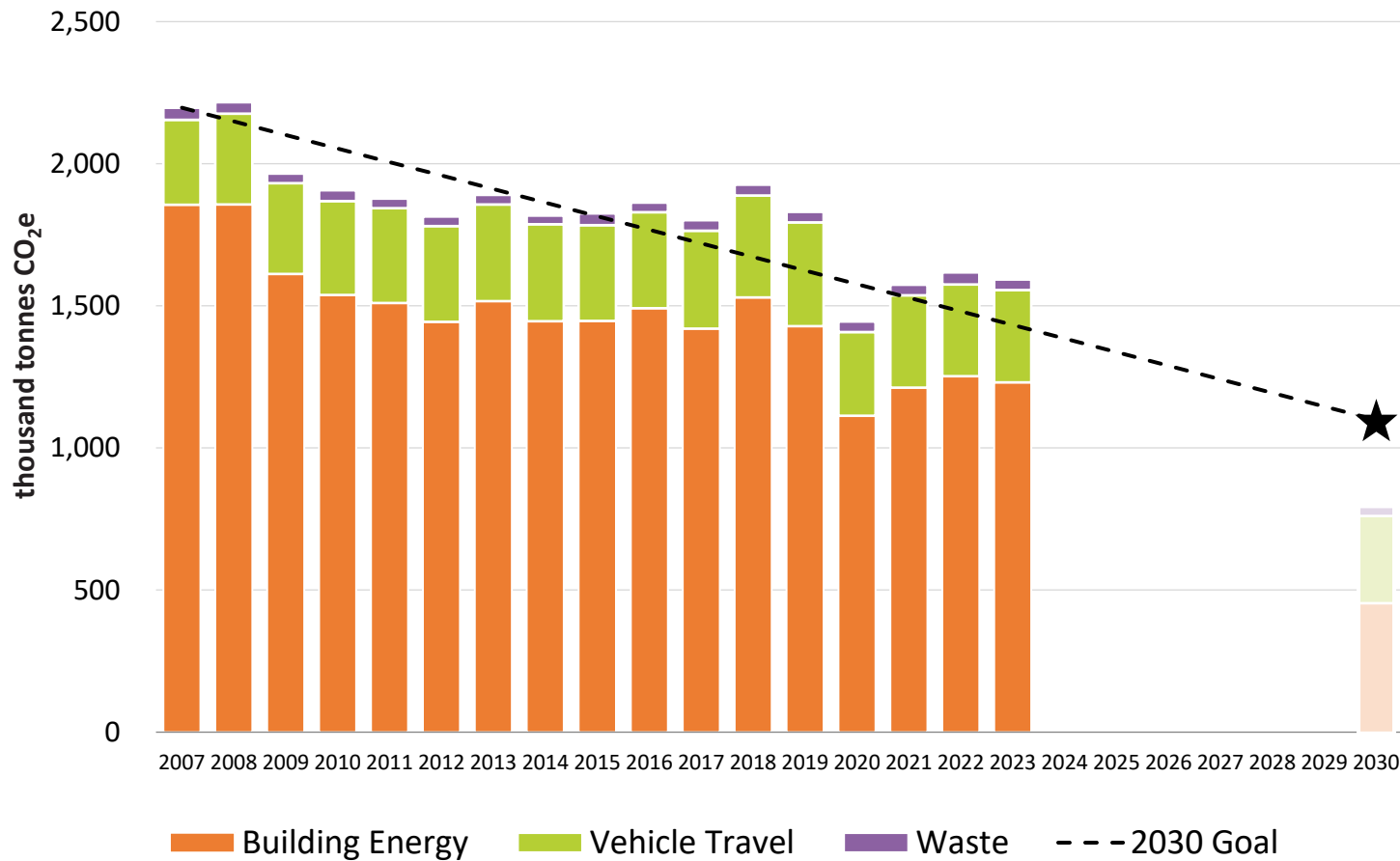
Greenhouse gas emissions have decreased by 28% since 2007.

Build on this momentum.



GREENHOUSE GAS EMISSIONS

ROCHESTER



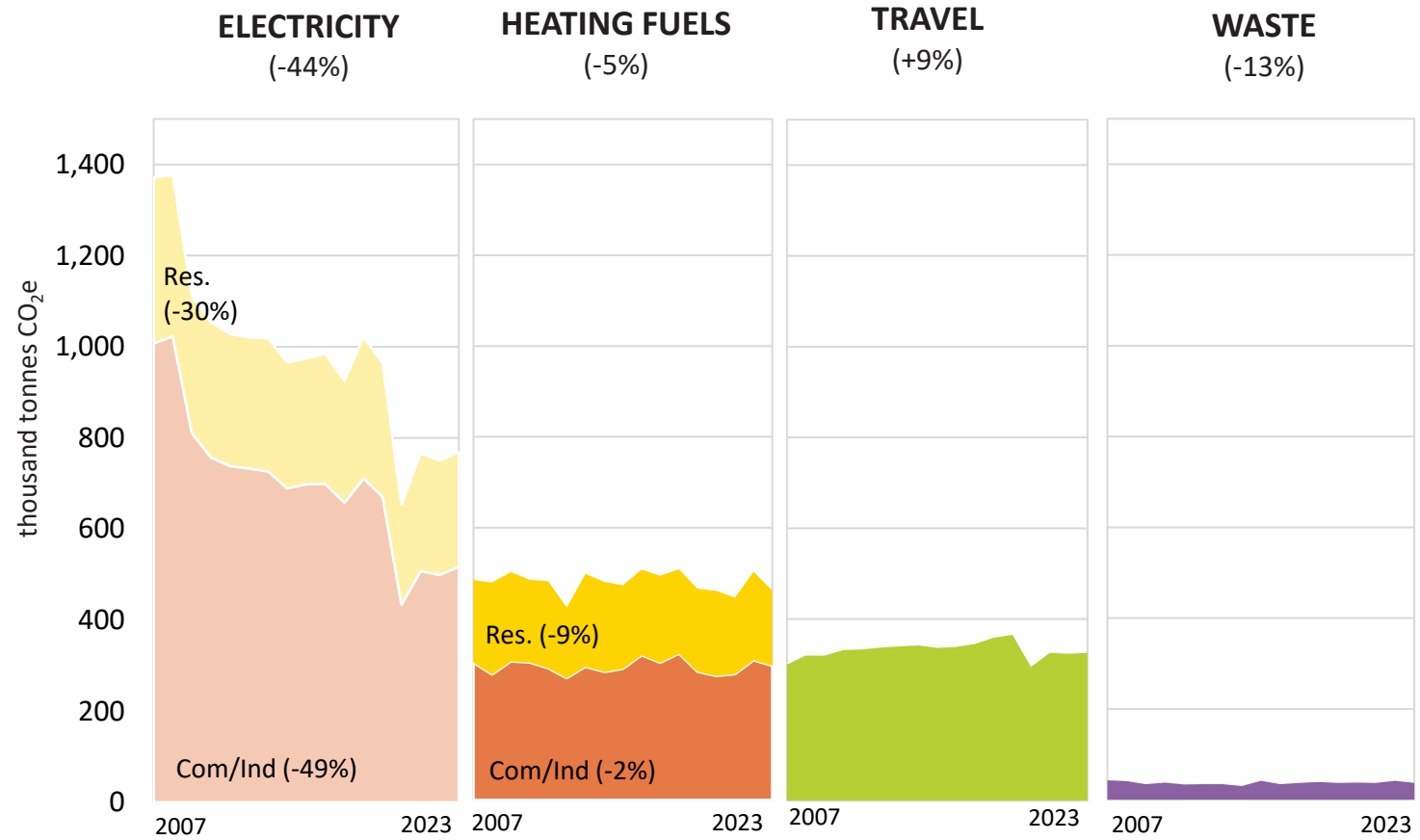
If Rochester meets its goal of 100% renewable electricity by 2030, the city is likely to also meet its 2030 emissions goal.

**Work towards 2030
renewable electricity goal.**



GREENHOUSE GAS EMISSIONS

ROCHESTER



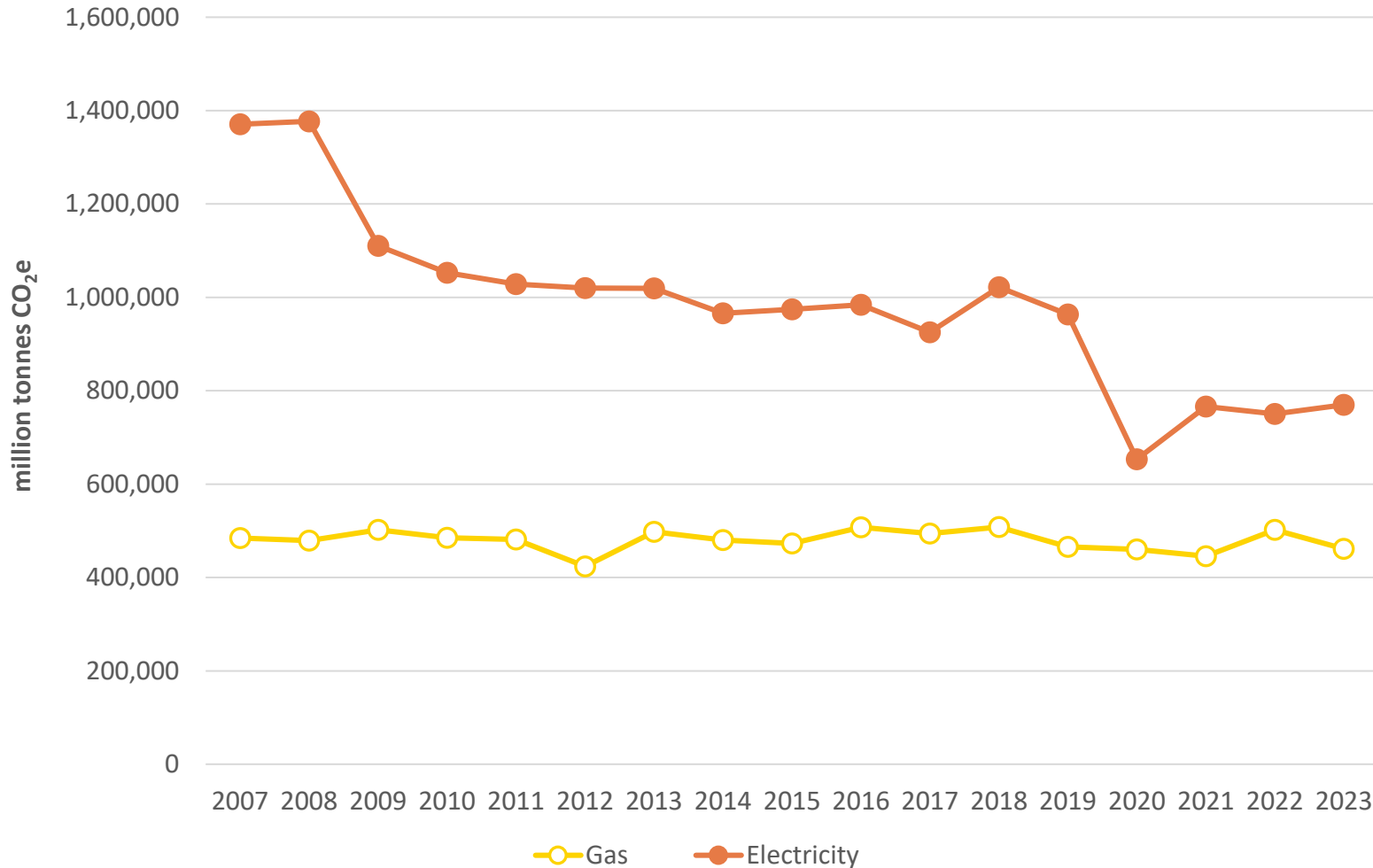
Despite 22% population growth, the city's emissions have shrunk in most sectors.

Keep pushing electricity while finding long-term solutions for gas and travel.



ENERGY EMISSIONS

ROCHESTER



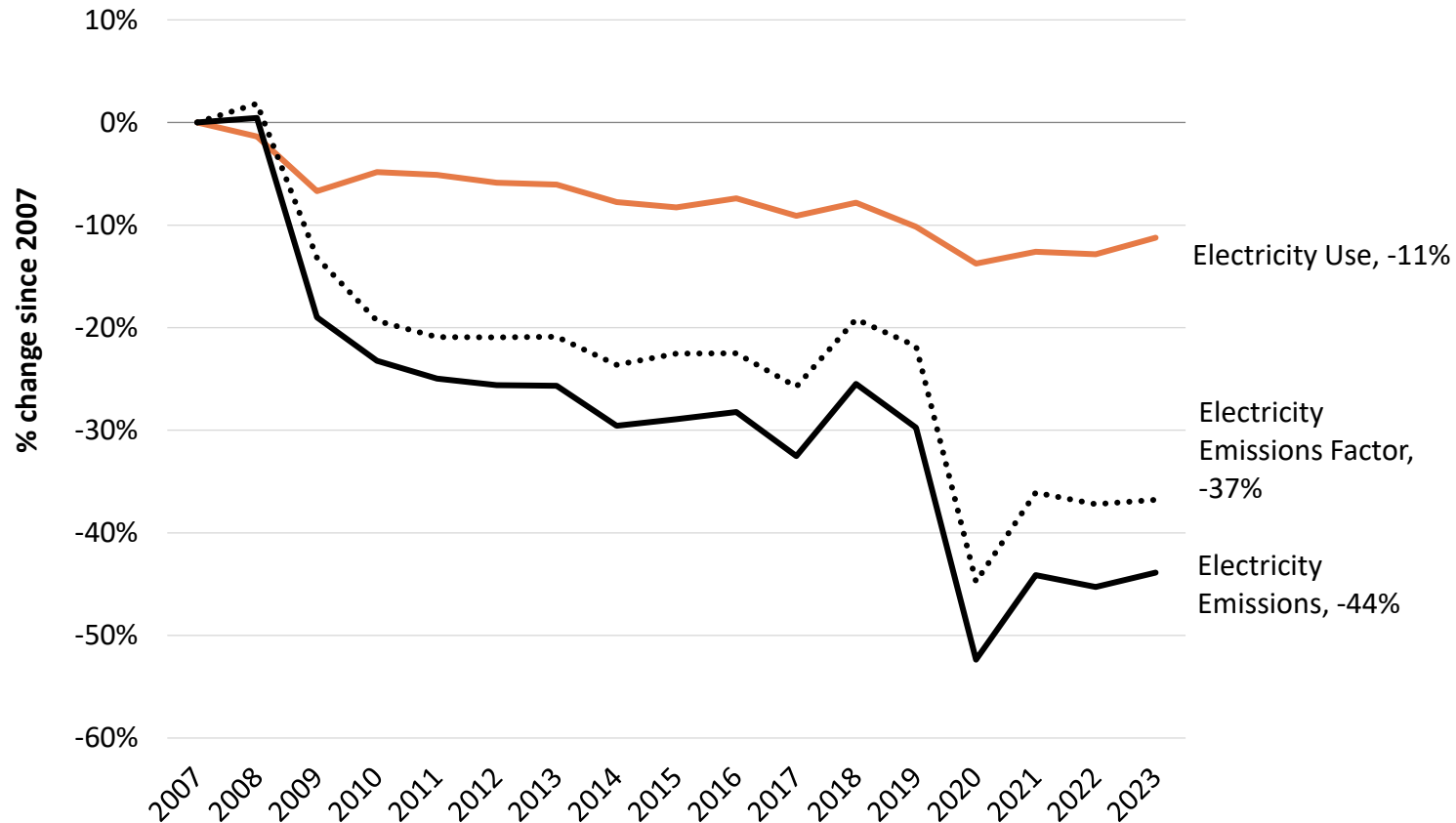
Gas emissions are now almost as high as electricity emissions.

Reduce gas use.



ELECTRICITY

ROCHESTER



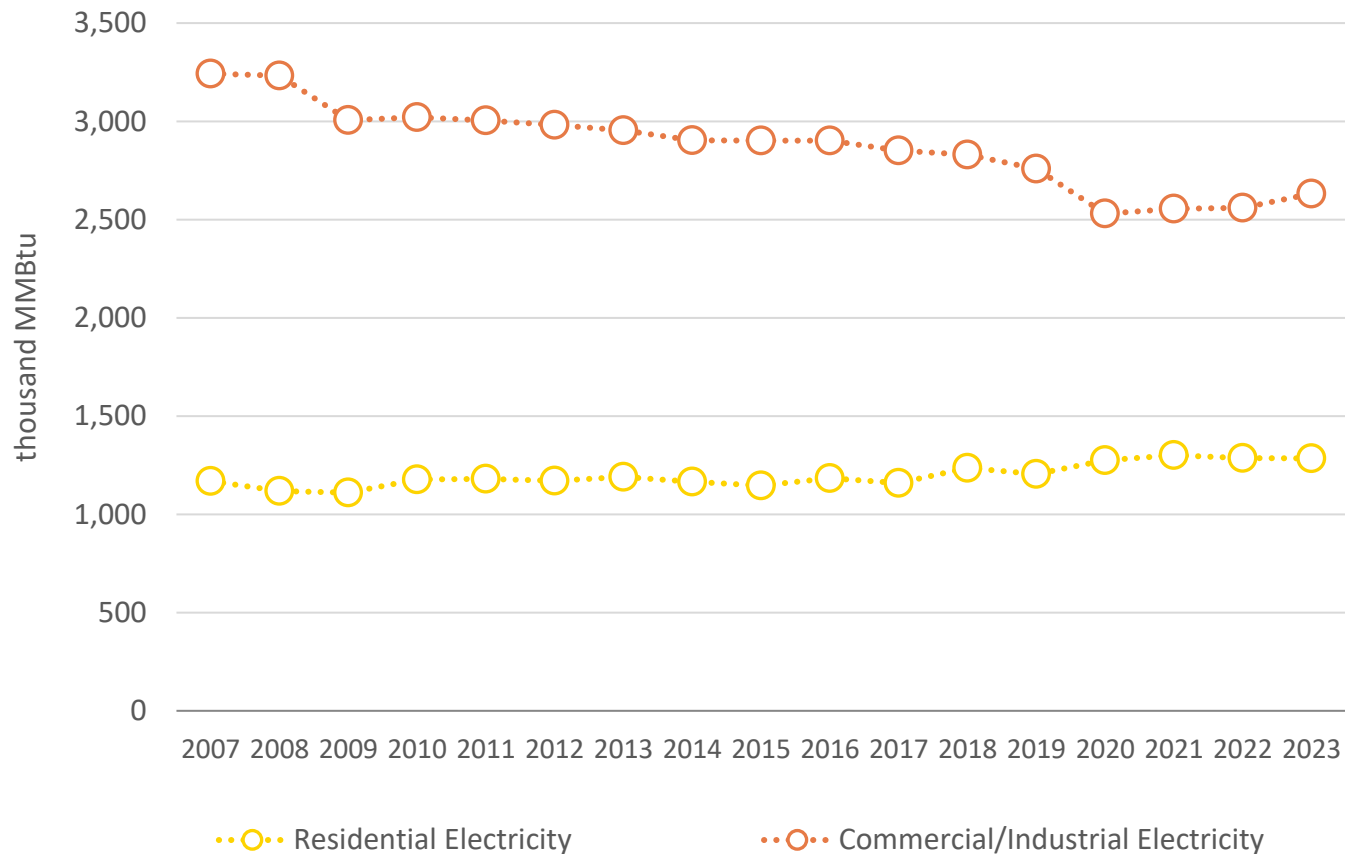
Electricity emissions decreased due to using **less electricity** and using cleaner generation sources.

Both policy and local actions make a difference.



ELECTRICITY USE

ROCHESTER

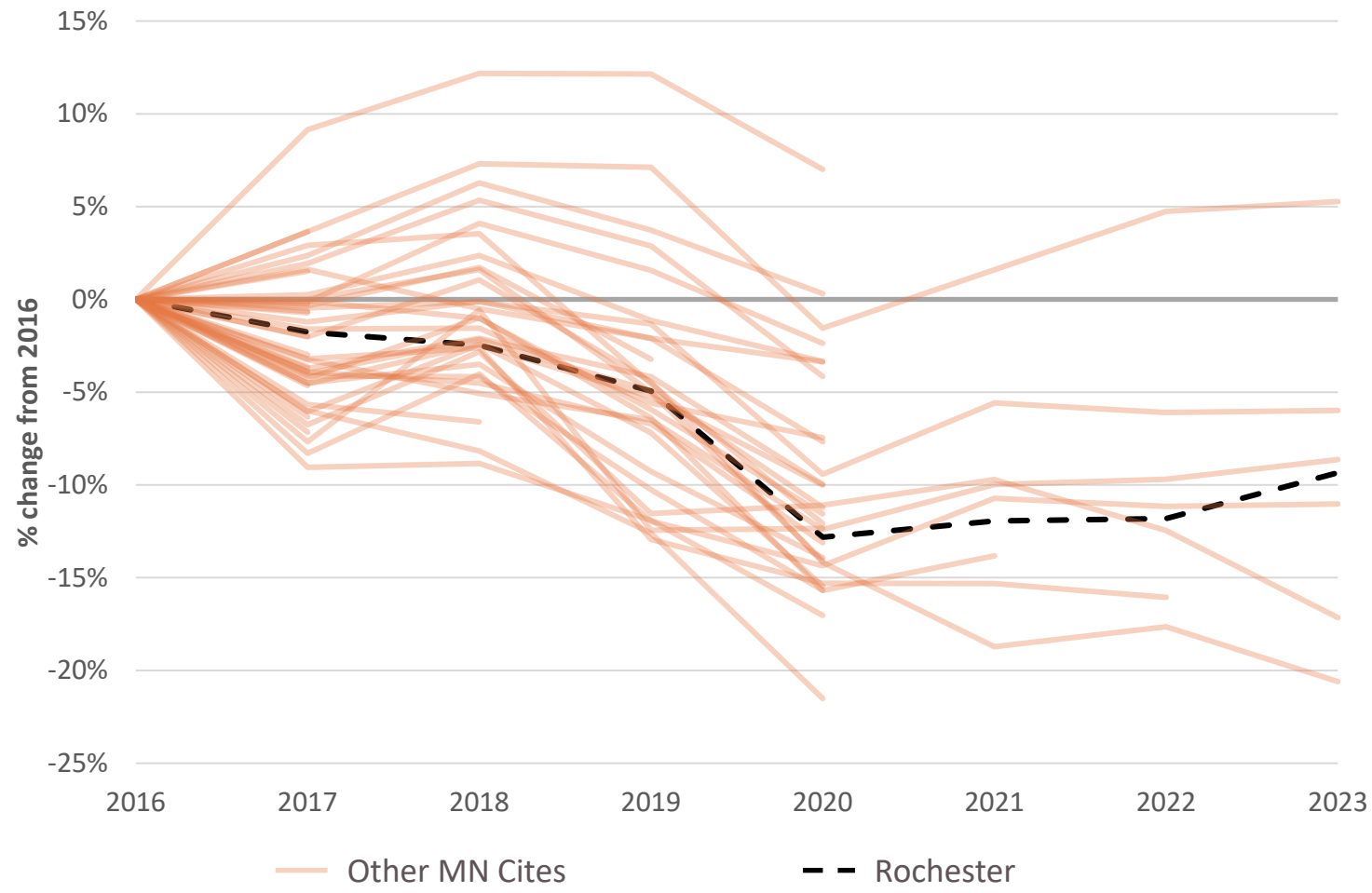


Commercial/industrial electricity use decreased by 19%, while residential increased by 10%.



COMPARISON WITH OTHER CITIES

COMMERCIAL/INDUSTRIAL ELECTRICITY USE



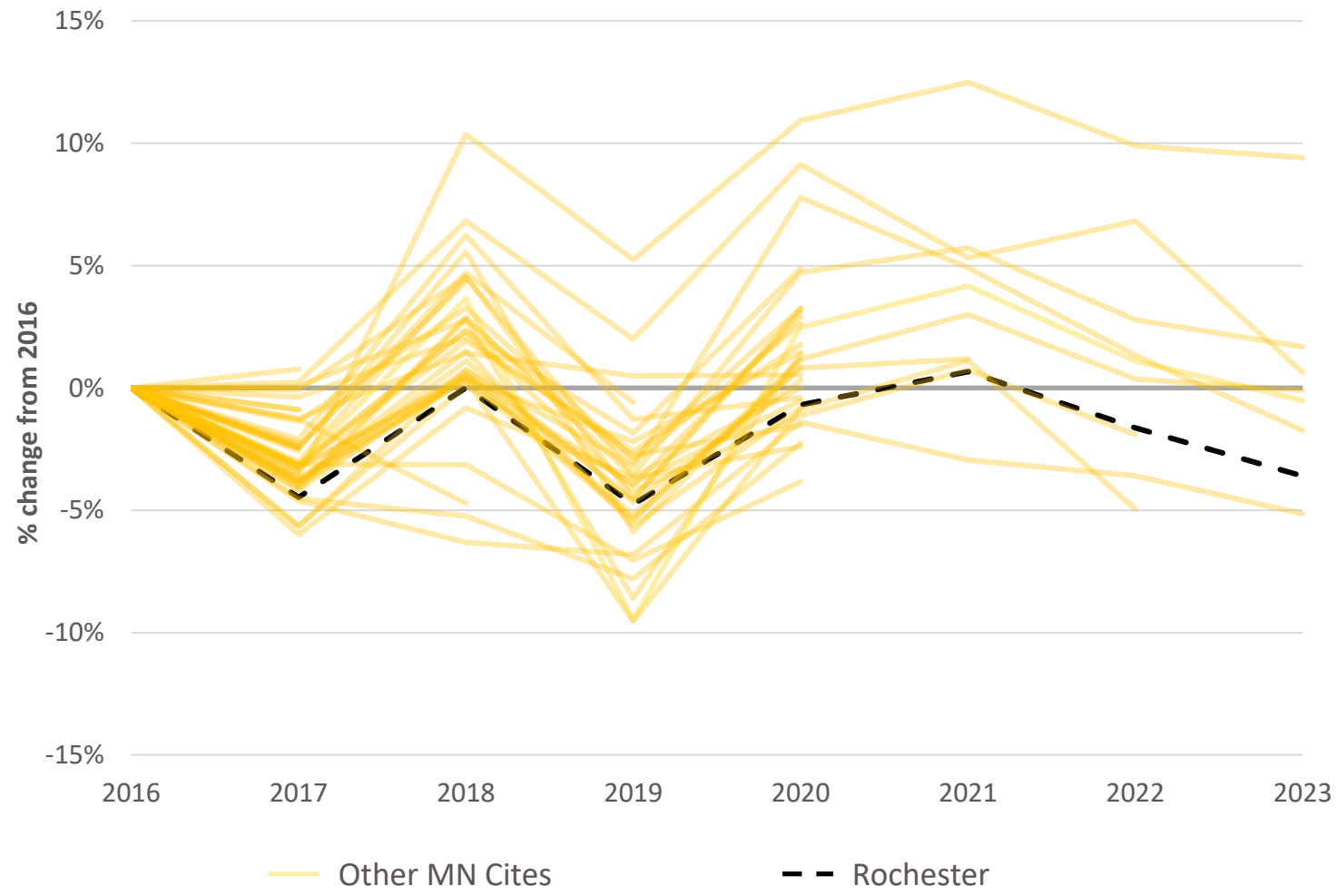
Rochester's commercial/industrial electricity use has experienced a similar reduction to other Minnesota cities.

Support electricity efficiency strategies for businesses.



COMPARISON WITH OTHER CITIES

RESIDENTIAL ELECTRICITY USE PER HOUSEHOLD



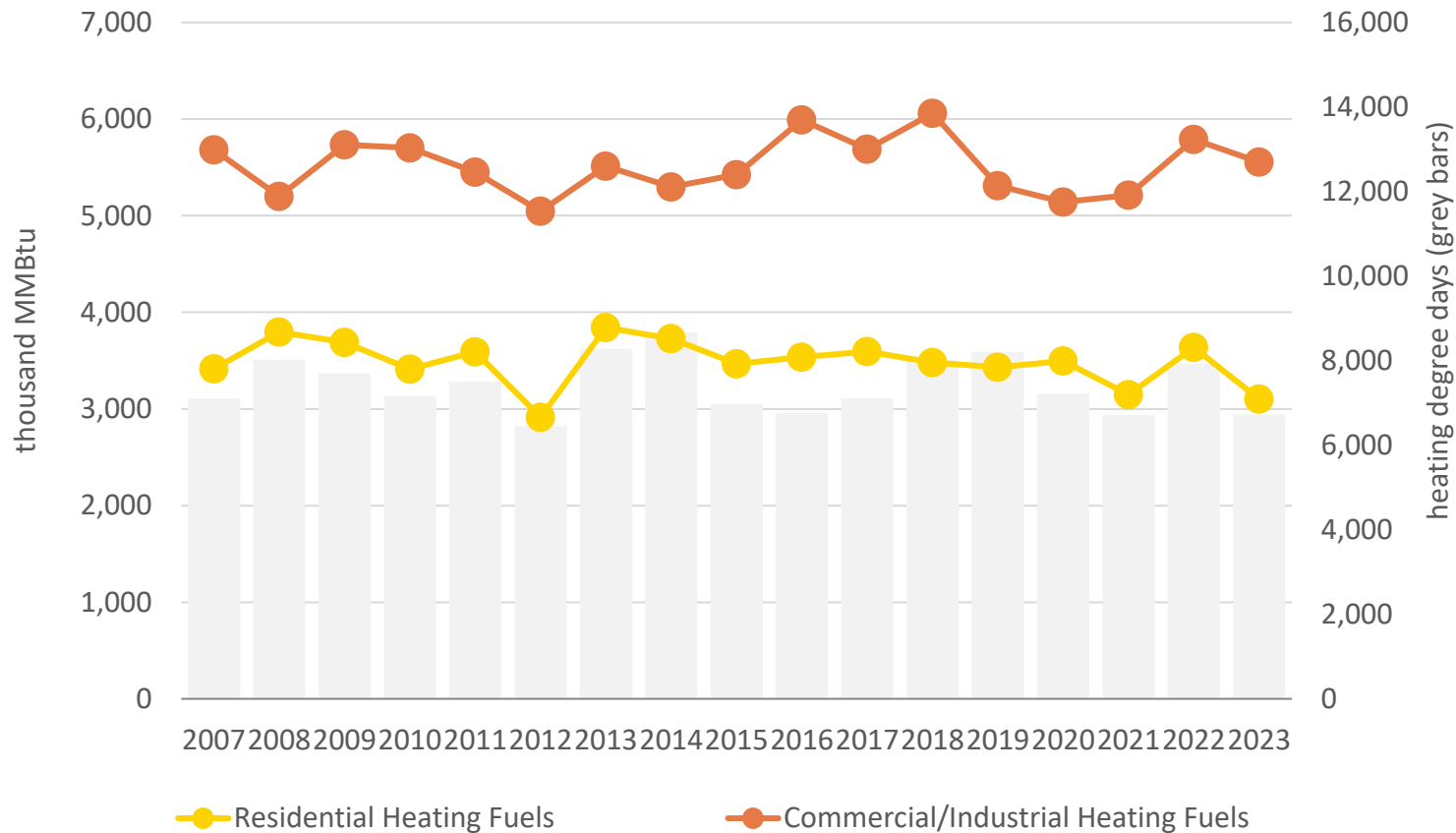
Rochester's residential electricity use per household has decreased slightly more than other Minnesota cities.

Support home weatherization and efficiency.



HEATING FUEL USE

ROCHESTER



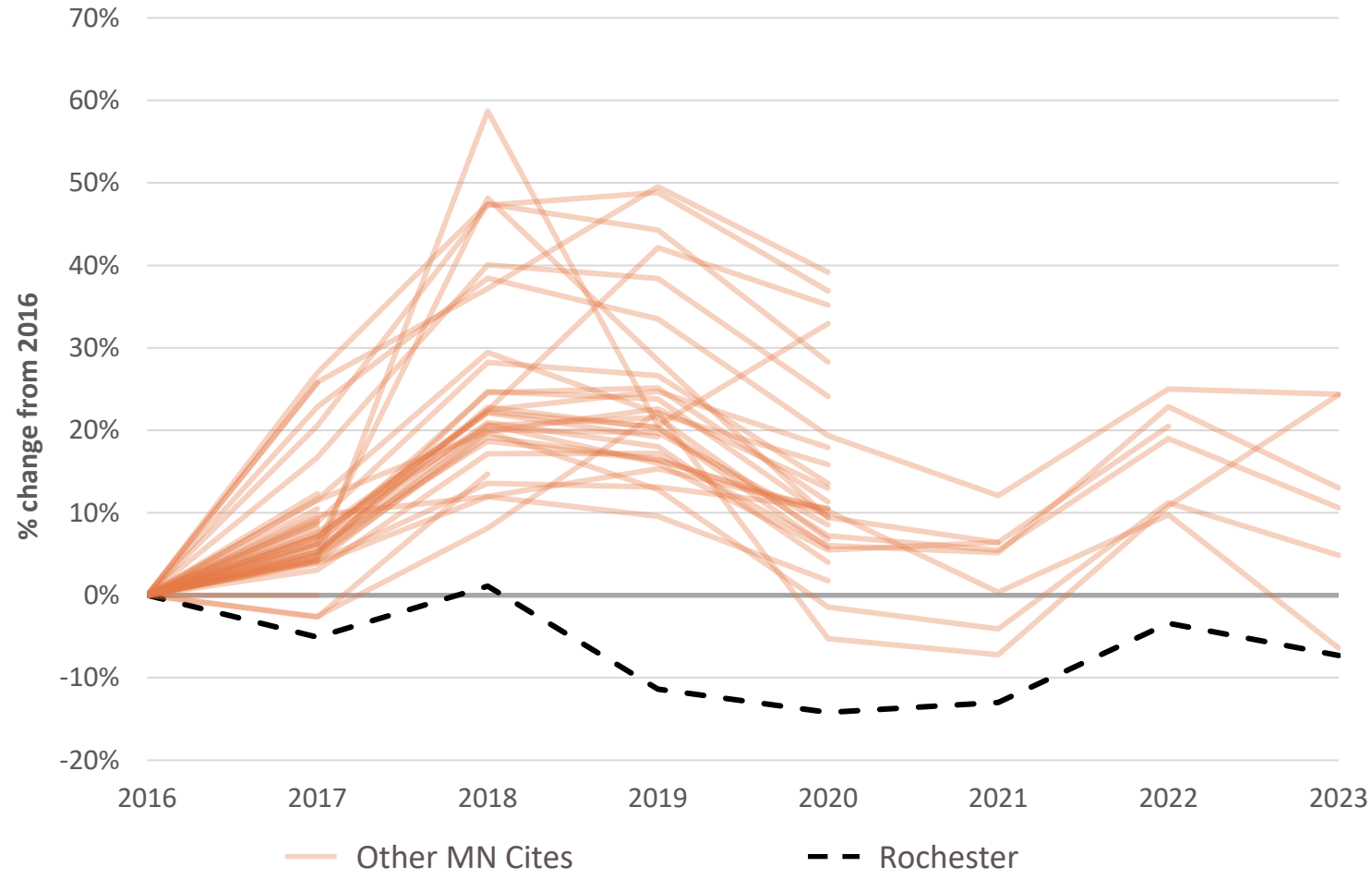
Residential heating fuel use is weather-dependent.

Improve building weatherization and switch to electric heat pumps.



COMPARISON WITH OTHER CITIES

COMMERCIAL/INDUSTRIAL GAS USE

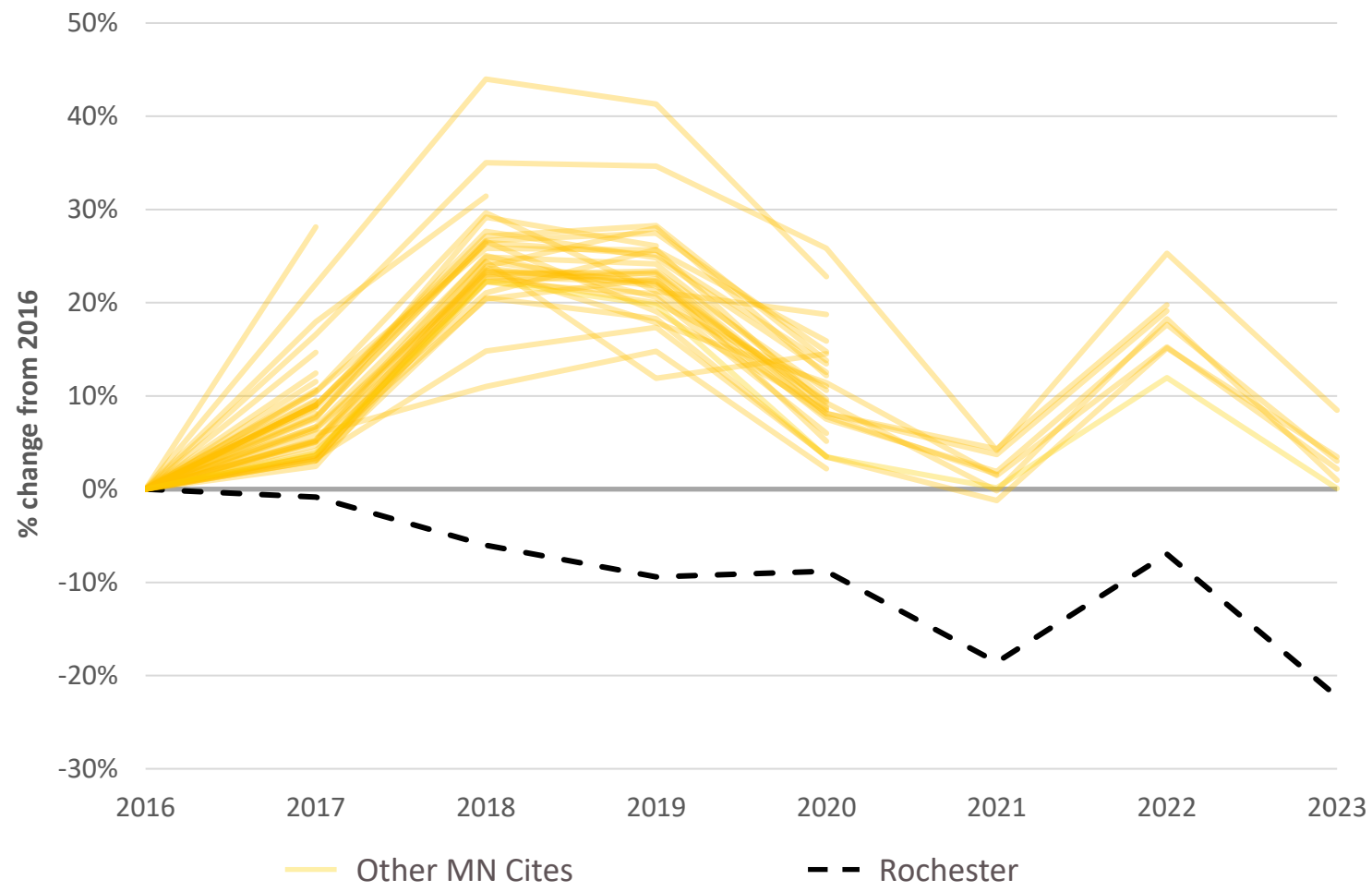


Rochester's commercial/industrial gas use has decreased more since 2016 than other Minnesota cities.



COMPARISON WITH OTHER CITIES

RESIDENTIAL GAS USE PER HOUSEHOLD

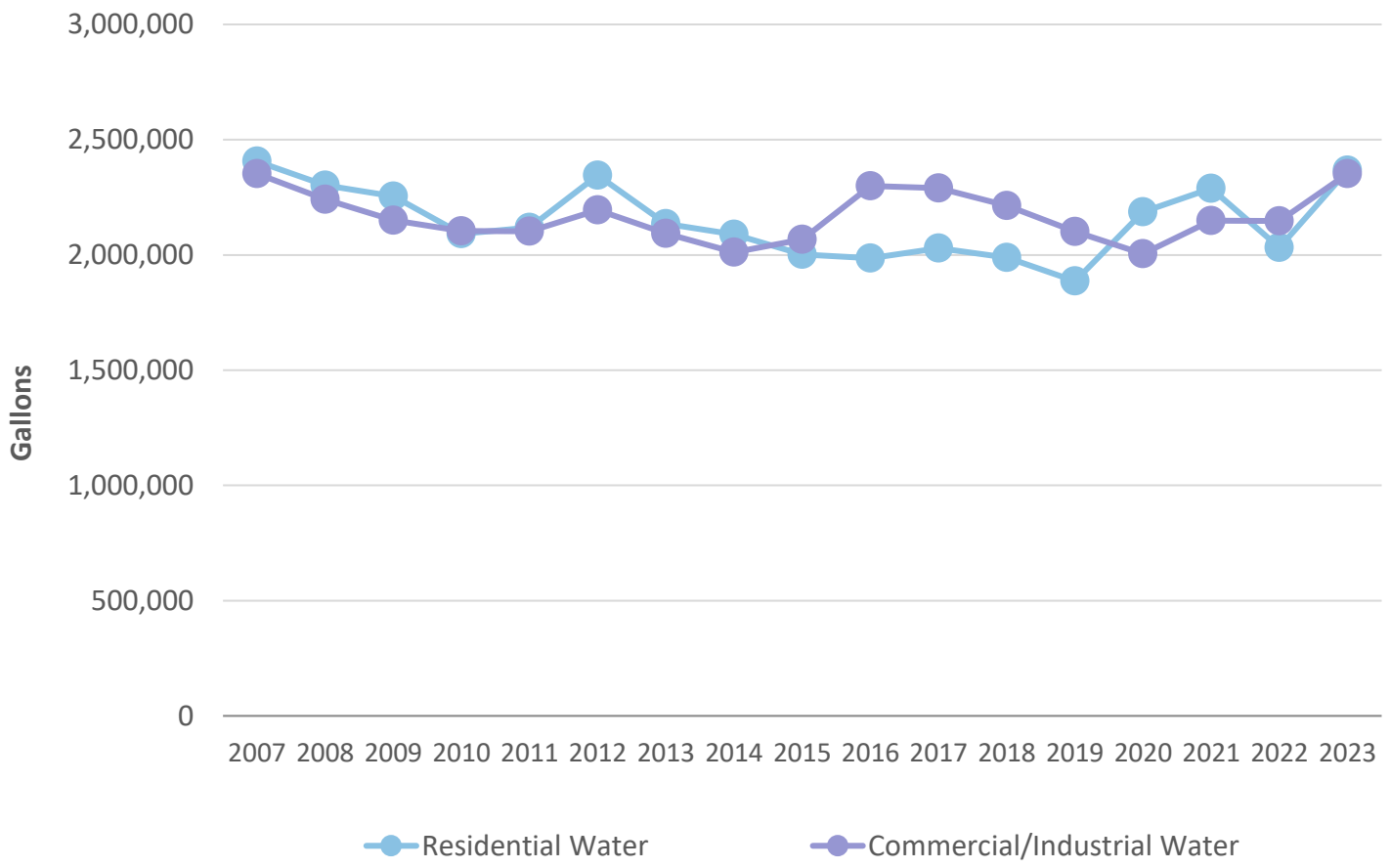


Rochester's residential gas use per household has decreased more than other Minnesota cities since 2016.



WATER

ROCHESTER



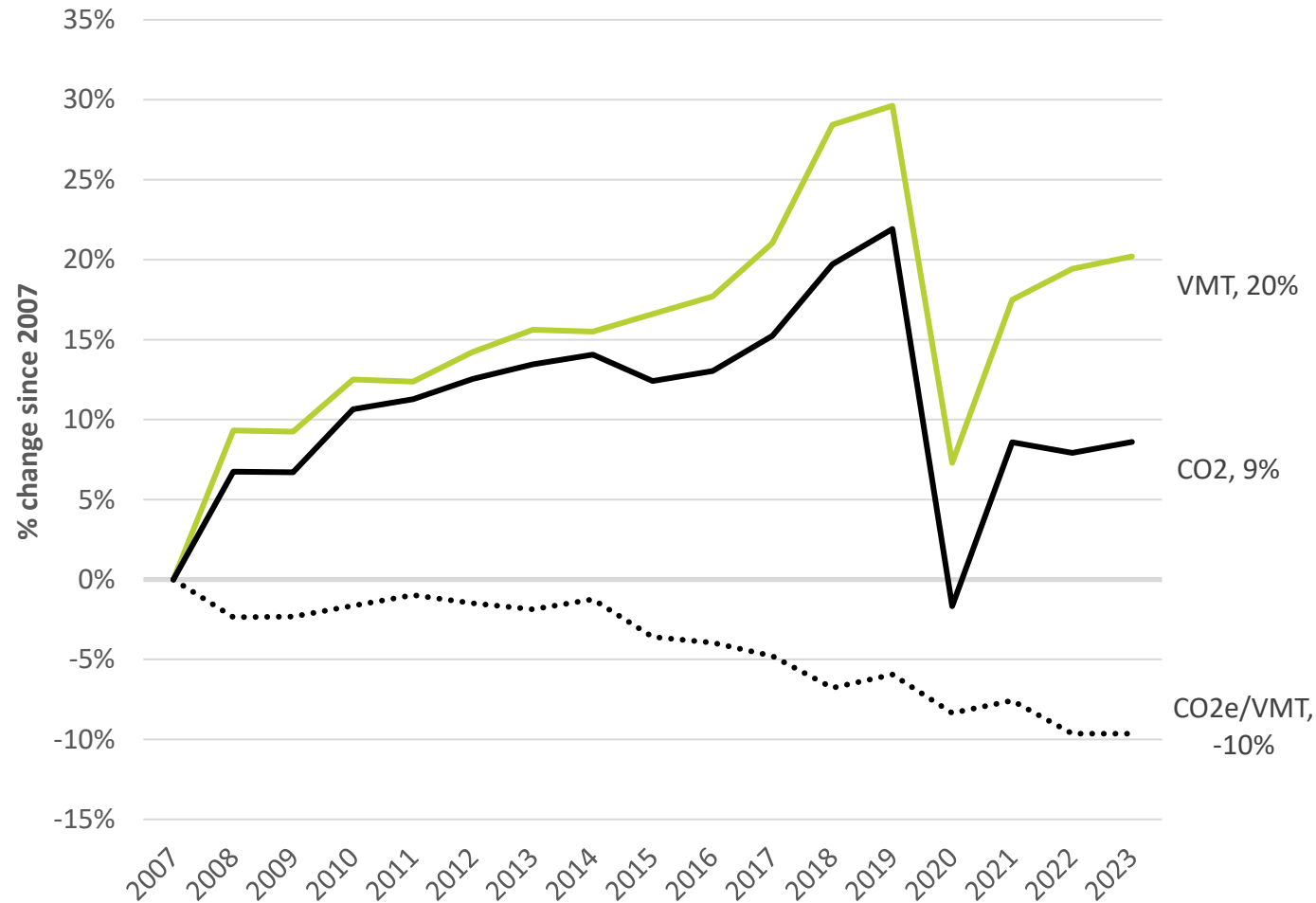
Water consumption has stayed about the same since 2007.

Support water use reduction strategies for homes and businesses.



VEHICLE TRAVEL

ROCHESTER



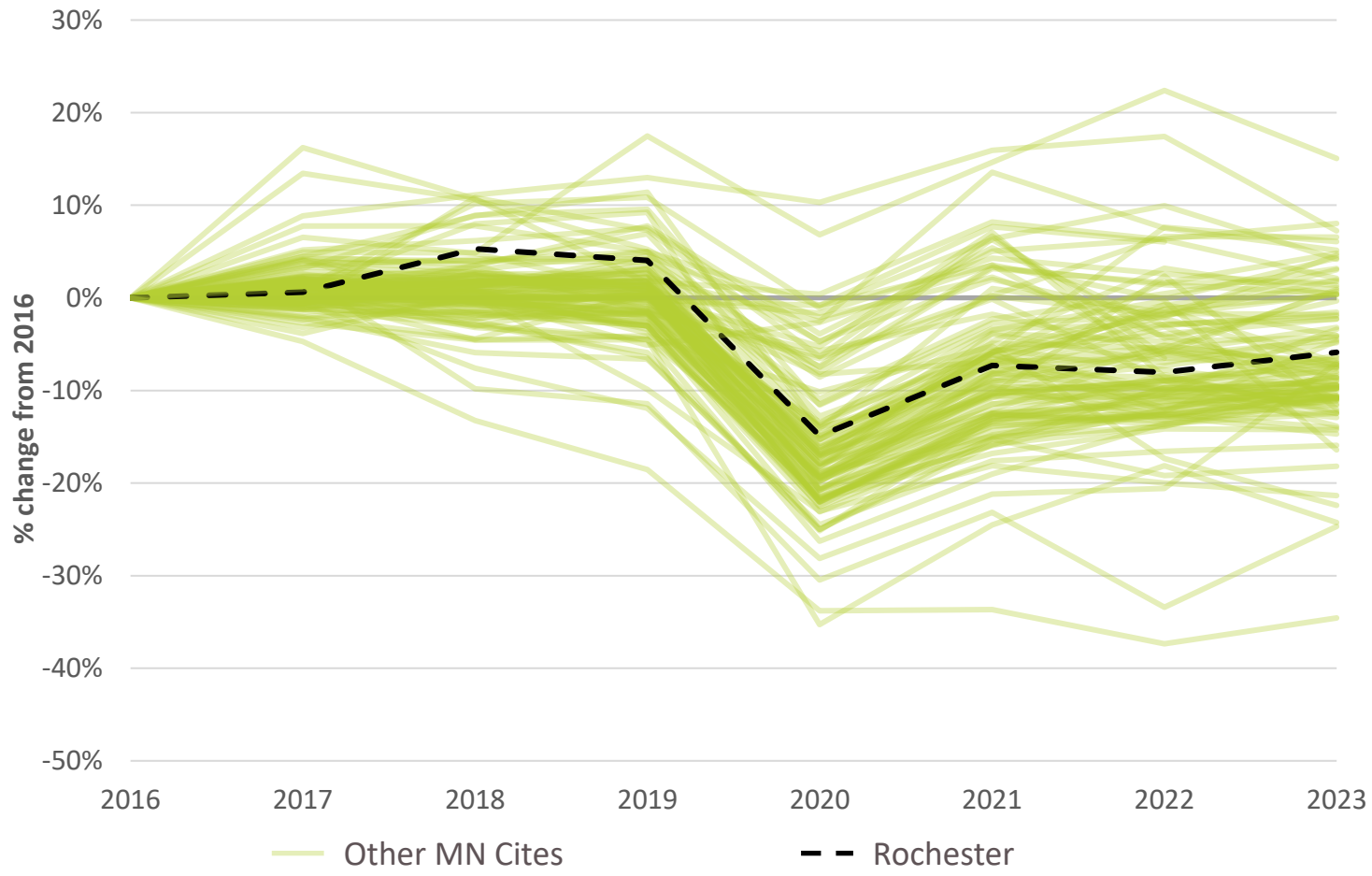
Vehicle miles traveled have increased by 20% since 2007, partially due to a 22% increase in population. The carbon intensity of each mile has decreased.

Accelerate VMT reduction and electric vehicle adoption.



COMPARISON WITH OTHER CITIES

VEHICLE MILES TRAVELED PER RESIDENT



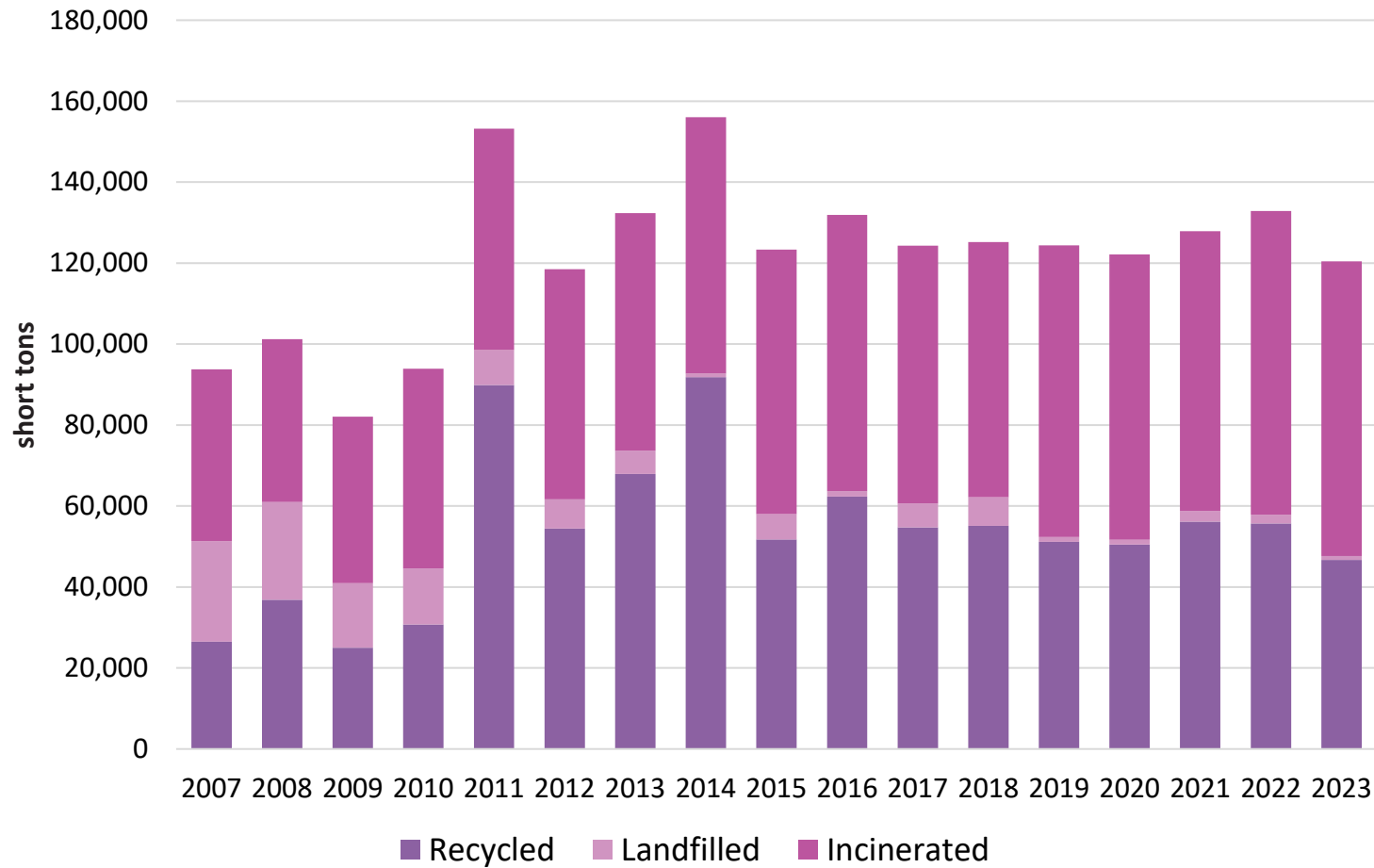
Rochester's vehicle miles traveled per resident has decreased by a similar amount since 2016 compared to other Minnesota cities.

Accelerate VMT reduction.



WASTE

ROCHESTER



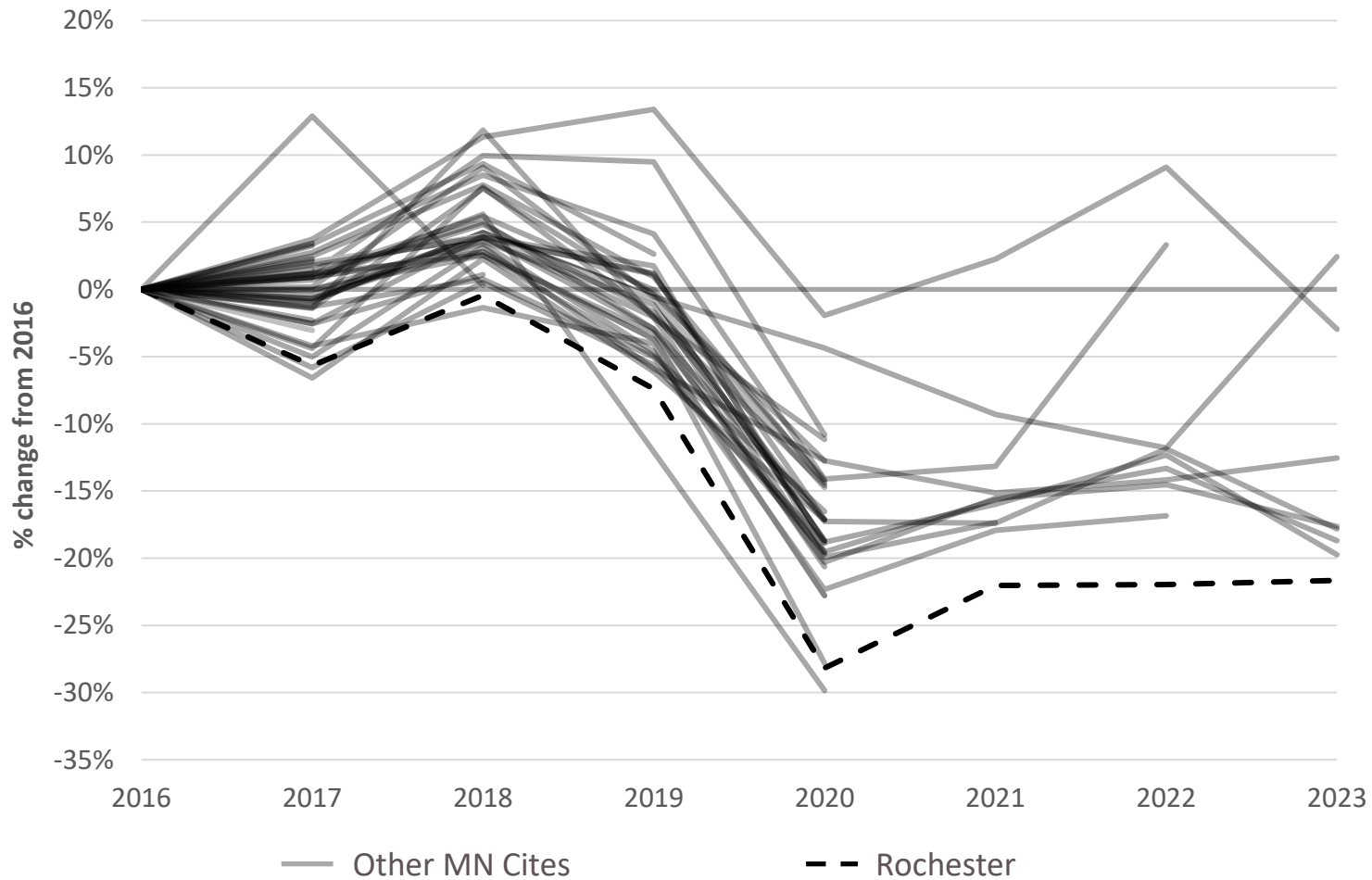
The recycling rate has increased since 2007.

Focus on reducing overall waste while continuing to increase recycling rates.



COMPARISONS WITH OTHER CITIES

GREENHOUSE GAS EMISSIONS PER CAPITA



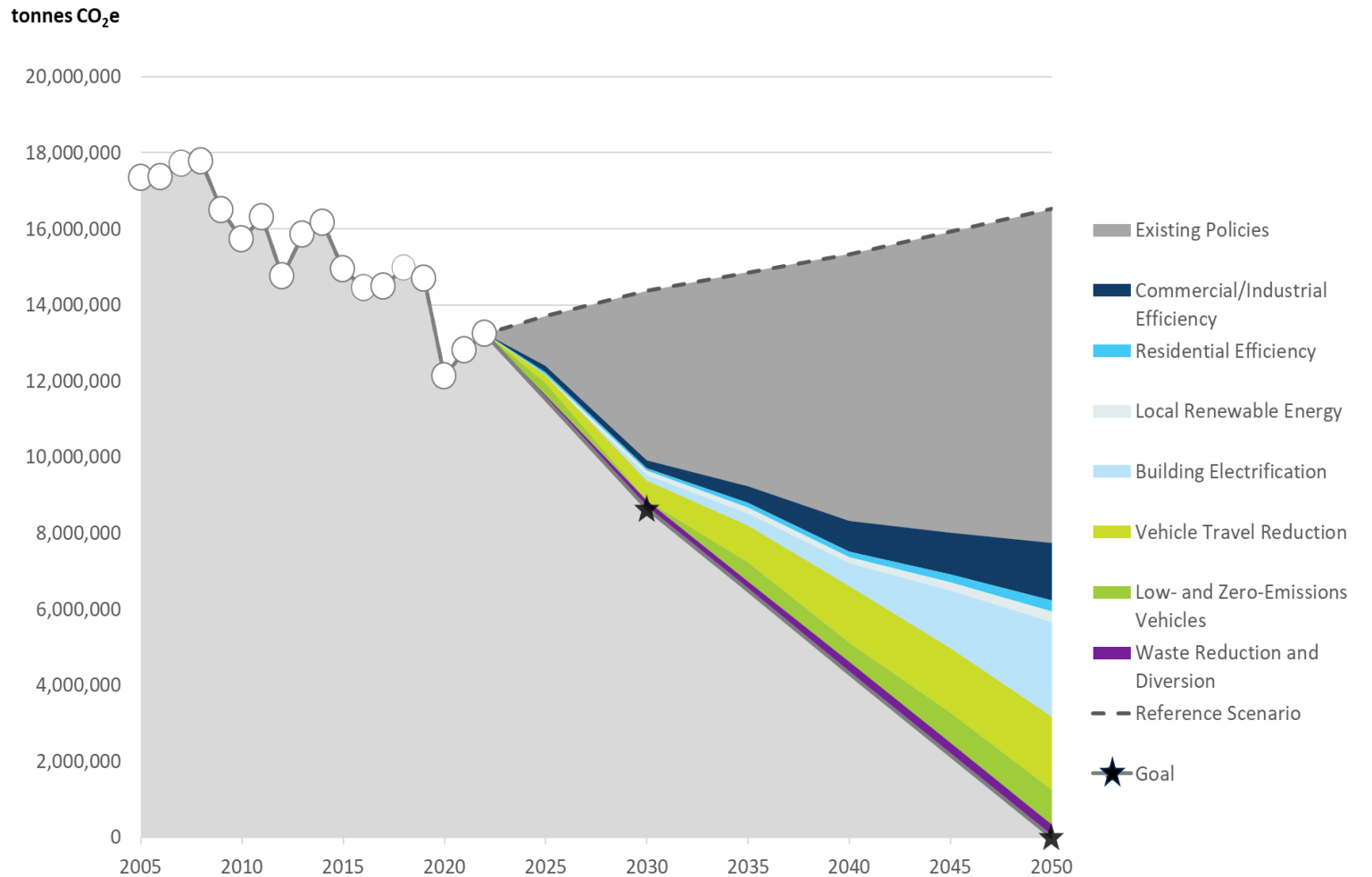
Rochester's greenhouse gas emissions per capita has decreased more than other Minnesota cities since 2016.

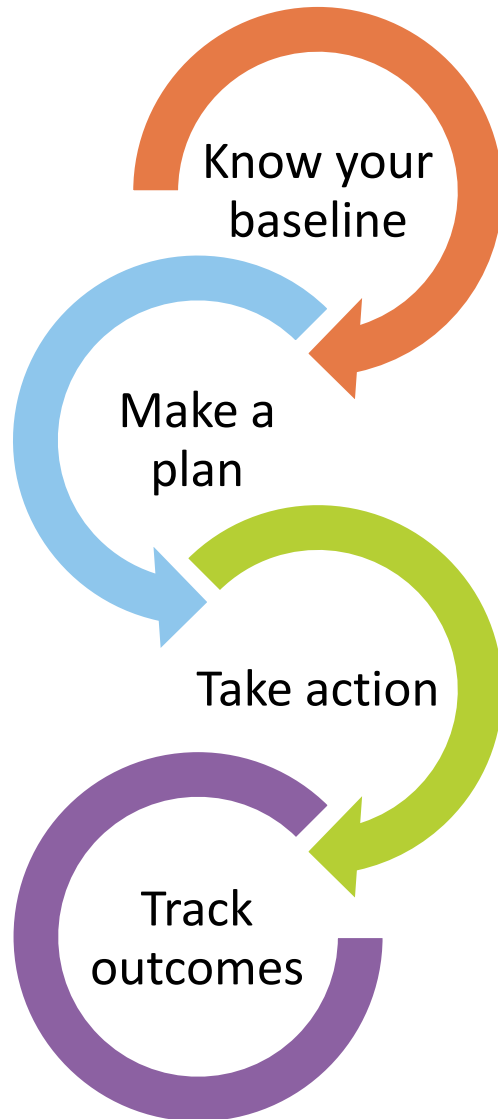
Continue climate action.



CALL TO ACTION

- Plan and take data-informed actions.
 - LHB's wedge diagram tool can help cities identify a pathway to city goals.
- Communicate city priorities.
- Track the impact of your actions over time.





QUESTIONS?

Ingrid Sokup, LHB Inc.
ingrid.sokup@lhbcorp.com